

12. (Amended) A solid state laser, comprising:

a doped laser rod with a first end and a second end and an entire length, wherein said laser rod comprises a tapered diameter along said entire length;

a first flanged, undoped end-cap optically contacted to said first end portion to form a first interface;

a second flanged, undoped end-cap optically contacted to said second end to form a second interface;

a cooling jacket sealably coupled to said first and second flanged end-caps;

a pump laser for providing pump laser light directed at said first flanged end-cap; and

a lens duct interposed between said pump laser and said first flanged end-cap, wherein said lens duct will concentrate said pump laser light.

16. (Amended) A method for fabricating a laser rod, comprising:

providing a polished doped laser rod comprising a first end and a second end and an entire length;

operatively connecting a first flanged endcap to said first end;

operatively connecting a second flanged endcap to said second end;

and